

Suggestions: 1) Please convert Sequence Ruler for valid format.
2) FJ1: all U.S. applications filed on or after July 1, 1998,
which do not claim a prior U.S. application, need to be in new Sequence Ruler format. 1636

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**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657**

1636

DATE: 02/09/2000
TIME: 09:53:45

INPUT SET: S34681.raw

This Raw Listing contains the General Information Section and those Sequences containing ERRORS.

GENERAL INFORMATION

SEQUENCE LISTING

Does Not Comply
Corrected Diskette Needed

(1) **General Information:** use upper-case letters for heading

(i) **APPLICANTS:** ↑ move up-
 (A) NAME: Peter Ruhdal Jensen
 (B) STREET: Soegaardsvej 19
 (C) CITY: Gentofte
 (D) COUNTRY: Denmark
 (E) POSTAL CODE (ZIP): DK-2820
 all responses must be on same
line or heading

not needed
for a)
U.S. filing
→

→ move this under first applicant

(F) POSTAL CODE (ZIP): DK-2820

→

(A) NAME: Karin Hammer
 (B) STREET: Gaerdesmuttevej 20
 (C) CITY: Heersholm
 (D) COUNTRY: Denmark
 (E) POSTAL CODE (ZIP): DK-2970

(ii) **TITLE OF INVENTION:** Artificial promoter libraries for selected
 ↑ move up
 organisms and promoters derived from such libraries

(iii) **NUMBER OF SEQUENCES:** 58

(iv) **CORRESPONDENCE ADDRESS** section goes above

(v) **COMPUTER READABLE FORM:**

(A) MEDIUM TYPE: Floppy disk
 (B) COMPUTER: IBM PC compatible
 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
 (D) SOFTWARE: PatentIn Release #1.0, Version #1.30

(vi) **CORRESPONDENCE ADDRESS:**

(A) ADDRESSEE: Stanislaus Aksman
 Hunton & Williams
 (B) STREET: 1900 K Street, NW
 (C) CITY: Washington, DC 20006-1109
 (D) COUNTRY: USA Phone: (202) 955-1500
 Facsimile: (202) 778-2201

(vii) **PRIOR APPLICATION DATA:**

(A) APPLICATION NUMBER: To Be Assigned
 (B) FILING DATE ~~IN THE US PTO~~: February 19, 1999
 (C) ATTORNEY DOCKET NO.: 55411.000002

(viii) **REFERENCE / DOCKET NUMBER** → goes under

(ix) **TELECOMMUNICATION INFORMATION:**

(A) APPLICATION NUMBER: DK 886/96

(x) **ATTORNEY / AGENT INFORMATION:**

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PATENT APPLICATION US/09/242,657DATE: 02/09/2000
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46 (B) FILING DATE: 23-AUG-1996
--> 47 (C) PCT APPLICATION NUMBER: PCT/DK97/00342
48 (D) FILING DATE: August 25, 1997
49

ERRORED SEQUENCES FOLLOW:

50 (2) INFORMATION FOR SEQ ID NO: 1:
51
52 (i) SEQUENCE CHARACTERISTICS:
--> 53 (A) LENGTH: 100 base pairs
54 (B) TYPE: nucleic acid
55 (C) STRANDEDNESS: double
56 (D) TOPOLOGY: linear
57
58 (ii) MOLECULE TYPE: DNA (genomic)
59
60 (iii) HYPOTHETICAL: YES
61
62 (iv) ANTI-SENSE: NO
63
64 (vi) ORIGINAL SOURCE:
65 (A) ORGANISM: Lactococcus lactis
66
67 (ix) FEATURE:
68 (A) NAME/KEY: promoter
69 (B) LOCATION:26..82
70 (C) IDENTIFICATION METHOD: experimental
71 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
72 /standard_name= "Artificial promoter library"
73 /note= "A degenerated sequence specifying a
74 mixture of
75 artificial promoters covering a wide range of
76 expression in
77 small steps in L. lactis"
78
79 (ix) FEATURE:
80 (A) NAME/KEY: misc_feature
81 (B) LOCATION:31..45
82 (D) OTHER INFORMATION:/standard_name= "Consensus
83 sequence"
84
85 (ix) FEATURE:
86 (A) NAME/KEY: misc_feature
87 (B) LOCATION:60..69
88 (D) OTHER INFORMATION:/standard_name= "Consensus
89 sequence"
90
91 (ix) FEATURE:
92 (A) NAME/KEY: misc_feature

**RAW SEQUENCE LISTING
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93 (B) LOCATION:74..82
94 (D) OTHER INFORMATION:/standard_name= "Consensus
95 sequence"
96
97 (ix) FEATURE:
98 (A) NAME/KEY: -35_signal
99 (B) LOCATION:40..45
100 (D) OTHER INFORMATION:/standard_name= "-35 box"
101
102 (ix) FEATURE:
103 (A) NAME/KEY: -10_signal
104 (B) LOCATION:63..68
105 (D) OTHER INFORMATION:/standard_name= "Pribnow box"
106
107 (ix) FEATURE:
108 (A) NAME/KEY: misc_recomb
109 (B) LOCATION:3..25
110 (C) IDENTIFICATION METHOD: experimental
111 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
112 /standard_name= "Multiple cloning site"
113 /label= MCS
114 /note= "A sequence specifying recognition sites
115 for the
116 restriction endonucleases: NlaIV, BstYI, BamHI,
117 AlwI, MboI,
118 DpnI, AflIII, MseI, SspI, NsiI."
119
120 (ix) FEATURE:
121 (A) NAME/KEY: misc_recomb
122 (B) LOCATION:74..98
123 (C) IDENTIFICATION METHOD: experimental
124 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
125 /standard_name= "Multiple cloning site"
126 /label= MCS
127 /note= "A sequence specifying recognition sites
128 for the
129 restriction endonucleases: ScaI, RsaI, HpaI,
130 HincII, MseI, SfcI,
131 PstI, Fnu4HI, BbvI, PvuII, NspBII, AluI, EcoRI.
132
133
134 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
135
136 CGGGATCCTT AAGAATATTA TGCATNNNN AGTTTATTCT TGACANNNN NNNNNNNNN
137 60
138
139 GGTATAATAN NANAGTACTG TAACTGCAG CTGAATTCCGG
140 100

142 (2) INFORMATION FOR SEO ID NO: 2:

143

**RAW SEQUENCE LISTING
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--> 145 (A) LENGTH: 113 base pairs
146 (B) TYPE: nucleic acid
147 (C) STRANDEDNESS: double
148 (D) TOPOLOGY: linear
149
150 (ii) MOLECULE TYPE: DNA (genomic)
151
152 (iii) HYPOTHETICAL: YES
153
154 (iv) ANTI-SENSE: NO
155
156
157 (ix) FEATURE:
158 (A) NAME/KEY: promoter
159 (B) LOCATION:23..95
160 (D) OTHER INFORMATION:/standard_name= "Artificial
161 promoter library"
162 /note= "A degenerated sequence specifying a
163 mixture of
164 artificial temperature regulated promoters
165 covering a wide range
166 of expression in small steps in L. lactis"
167
168 (ix) FEATURE:
169 (A) NAME/KEY: misc_feature
170 (B) LOCATION:23..49
171 (D) OTHER INFORMATION:/standard_name= "Sequence
172 providing
173 temperature regulation to promoters"
174 /note= "This sequence comprising two inverted
175 repeats separated
176 by a short spacer provides temperature (heat
177 shock) regulation
178 to promoters in Gram-positive bacteria"
179
180 (ix) FEATURE:
181 (A) NAME/KEY: misc_feature
182 (B) LOCATION:50..60
183 (D) OTHER INFORMATION:/standard_name= "Consensus
184 sequence"
185
186 (ix) FEATURE:
187 (A) NAME/KEY: misc_feature
188 (B) LOCATION:75..84
189 (D) OTHER INFORMATION:/standard_name= "Consensus
190 sequence"
191
192 (ix) FEATURE:
193 (A) NAME/KEY: misc_feature
194 (B) LOCATION:89..95
195 (D) OTHER INFORMATION:/standard_name= "Consensus
196 sequence"
197

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198 (ix) FEATURE:
199 (A) NAME/KEY: -35_signal
200 (B) LOCATION:55..60
201 (D) OTHER INFORMATION:/standard_name= "-35 box"
202
203 (ix) FEATURE:
204 (A) NAME/KEY: -10_signal
205 (B) LOCATION:78..83
206 (D) OTHER INFORMATION:/standard_name= "Pribnow box"
207
208 (ix) FEATURE:
209 (A) NAME/KEY: misc_recomb
210 (B) LOCATION:3..22
211 (D) OTHER INFORMATION:/standard_name= "Multiple cloning
212 site"
213 /label= MCS
214 /note= "A sequence specifying recognition sites
215 for the
216 restriction endonucleases: NlaIV, BstYI, BamHI,
217 AlwI, MboI,
218 DpnI, HindIII, AluI, MseI (2 sites), SspI,
219 AseI."
220
221 (ix) FEATURE:
222 (A) NAME/KEY: misc_recomb
223 (B) LOCATION:89..111
224 (D) OTHER INFORMATION:/standard_name= "Multiple cloning
225 site"
226 /label= MCS
227 /note= "A sequence specifying recognition sites
228 for the
229 restriction endonucleases: ScaI, RsaI, SfcI,
230 PstI, Fnu4HI, BbvI,
231 PvuII, NspBII, AluI, XbaI, MaeI, EcoRI, ApoI."
232
233
234 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
235
236 CGGGATCCAA GCTTAATATT AATTAGCACT CNNNNNNNNN GAGTGCTAAT TTTTTTGACA
237 60
238
239 NNNNNNNNNN NNNNTGGTAT AATANNANAG TACTGCAGCT GTCTAGAATT CGG
240 113
241

*same
format
error*

242 (2) INFORMATION FOR SEQ ID NO: 3:
243
244 (i) SEQUENCE CHARACTERISTICS:
--> 245 (A) LENGTH: 199 base pairs
246 (B) TYPE: nucleic acid
247 (C) STRANDEDNESS: double
248 (D) TOPOLOGY: linear
249

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250 (ii) MOLECULE TYPE: DNA (genomic)
251
252 (iii) HYPOTHETICAL: YES
253
254 (iv) ANTI-SENSE: NO
255
256 (vi) ORIGINAL SOURCE:
257 (A) ORGANISM: *Saccharomyces cerevisiae*
258
259 (ix) FEATURE:
260 (A) NAME/KEY: protein_bind
261 (B) LOCATION:10..16
262 (D) OTHER INFORMATION:/function= "Activating promoters
263 in
264 *S. cerevisiae*"
265 /bound_moiety= "GCN4 protein"
266 /standard_name= "Upstream activating sequence"
267 /label= UAS_GCN4p
268 /note= "A DNA sequence that specifies a binding
269 site for the
270 GCN4 protein, which activates the transcription
271 of genes
272 involved in aminoacid synthesis in *S.*
273 *cerevisiae.*"
274 (ix) FEATURE: *insert space*
275 (A) NAME/KEY: TATA_signal
276 (B) LOCATION:67..72
277 (D) OTHER INFORMATION:/standard_name= "TATA box"
278
279 (ix) FEATURE:
280 (A) NAME/KEY: misc_signal
281 (B) LOCATION:122..144
282 (D) OTHER INFORMATION:/function= "Transcription
283 initiation"
284 /standard_name= "TI box"
285
286 (ix) FEATURE:
287 (A) NAME/KEY: protein_bind
288 (B) LOCATION:122..144
289 (D) OTHER INFORMATION:/bound_moiety= "Arginine
290 repressor"
291 /standard_name= "arginine repressor binding
292 site"
293 /label= argR
294
295 (ix) FEATURE:
296 (A) NAME/KEY: misc_RNA
297 (B) LOCATION:145..192
298 (D) OTHER INFORMATION:/function= "Spacer"
299 /standard_name= "Part of native sequence for
300 ARG8
301 gene incl. first codon"

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303
304 (ix) FEATURE:
305 (A) NAME/KEY: misc_recomb
306 (B) LOCATION:3..8
307 (D) OTHER INFORMATION:/standard_name= "Recognition site
308 for restriction endonuclease EcoRI"
309 /label= EcoRI_site
310
311 (ix) FEATURE:
312 (A) NAME/KEY: misc_recomb
313 (B) LOCATION:192..197
314 (D) OTHER INFORMATION:/standard_name= "Recognition site
315 for restriction endonuclease BamHI"
316 /label= BamHI_site
317
318 (ix) FEATURE:
319 (A) NAME/KEY: promoter
320 (B) LOCATION:10..192
321 (D) OTHER INFORMATION:/standard_name= "Artificial
322 promoter library"
323 /note= "A degenerated sequence specifying a
324 mixture of
325 artificial promoters covering a wide range of
326 expression in
327 small steps in S. cerevisiae"
328
329
330 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
331
332 CAGAATTCTG GACTCANNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN
333 60
334
335 NNNNNNNNNN NNNNNNTATA AANNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN
336 120
337
338 NCTCTTAAGT GCAAGTGACT GCGAACATTT TTTTCGTTTG TTAGAATAAT TCAAGAATCG
339 180
340
341 CTACCAATCA TGGATCCCG
342 199
343

*Sample
Genes*

344 (2) INFORMATION FOR SEQ ID NO: 4:
345
346 (i) SEQUENCE CHARACTERISTICS:
--> 347 (A) LENGTH: 45 base pairs
348 (B) TYPE: nucleic acid
349 (C) STRANDEDNESS: double
350 (D) TOPOLOGY: linear
351
352 (ii) MOLECULE TYPE: DNA (genomic)
353
354 (iii) HYPOTHETICAL: YES

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355
356 (iv) ANTI-SENSE: NO
357
358 (vi) ORIGINAL SOURCE:
359 (A) ORGANISM: Pseudomonas putida
360
361 (ix) FEATURE:
362 (A) NAME/KEY: promoter
363 (B) LOCATION: 1..45
364 (C) IDENTIFICATION METHOD: experimental
365 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL
366 /standard_name= "Artificial promoter library"
367 /note= "A degenerated sequence specifying a
368 mixture of
369 artificial promoters covering a wide range of
370 expression in small
371 steps Pseudomonas putida"
372
373
374 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
375
376 NNNNNNNNTT GRNNNNNNNN NNNNNNNNNN NTATRATNNN NNNNN
377 45
378

379 (2) INFORMATION FOR SEQ ID NO: 5:
380
381 (i) SEQUENCE CHARACTERISTICS:
382 (A) LENGTH: 60 base pairs
383 (B) TYPE: nucleic acid
384 (C) STRANDEDNESS: double
385 (D) TOPOLOGY: linear
386
387 (ii) MOLECULE TYPE: DNA (genomic)
388
389 (iii) HYPOTHETICAL: YES
390
391 (iv) ANTI-SENSE: NO
392
393 (vi) ORIGINAL SOURCE:
394 (A) ORGANISM: Lactococcus lactis
395
396 (ix) FEATURE:
397 (A) NAME/KEY: promoter
398 (B) LOCATION: 4..60
399 (D) OTHER INFORMATION: /standard_name= "Constitutional
400 promoter"
401 /label= Cpl
402
403
404 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
405
406 CATACCGGAG TTTATTCTTG ACAGTTCCAC CTCGGGTTGA TATAATATCT CAGTACTG

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408
409

410 (2) INFORMATION FOR SEQ ID NO: 6:
411
412 (i) SEQUENCE CHARACTERISTICS:
--> 413 (A) LENGTH: 60 base pairs
414 (B) TYPE: nucleic acid
415 (C) STRANDEDNESS: double
416 (D) TOPOLOGY: linear
417
418 (ii) MOLECULE TYPE: DNA (genomic)
419
420 (iii) HYPOTHETICAL: YES
421
422 (iv) ANTI-SENSE: NO
423
424 (vi) ORIGINAL SOURCE:
425 (A) ORGANISM: Lactococcus lactis
426
427 (ix) FEATURE:
428 (A) NAME/KEY: promoter
429 (B) LOCATION: 4..60
430 (D) OTHER INFORMATION:/standard_name= "Constitutional
431 promoter"
432 /label= Cp10
433
434
435 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
436
437 CATGGCTTAG TTTATTCTTG ACAGGGTAGT ATCACTGTGA TATAATAGGA CAGTACTGTT
438 60
439
440

Name

441 (2) INFORMATION FOR SEQ ID NO: 7:
442
443 (i) SEQUENCE CHARACTERISTICS:
--> 444 (A) LENGTH: 59 base pairs
445 (B) TYPE: nucleic acid
446 (C) STRANDEDNESS: double
447 (D) TOPOLOGY: linear
448
449 (ii) MOLECULE TYPE: DNA (genomic)
450
451 (iii) HYPOTHETICAL: YES
452
453 (iv) ANTI-SENSE: NO
454
455 (vi) ORIGINAL SOURCE:
456 (A) ORGANISM: Lactococcus lactis
457

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458 (ix) FEATURE:
459 (A) NAME/KEY: promoter
460 (B) LOCATION: 4..59
461 (D) OTHER INFORMATION:/standard_name= "Constitutional
462 promoter"
463 /label= Cp11
464
465

466 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

467
468 CATAAGTGAG TTTATTCTTG ACCCGGACGC CCCCCTTG AATAATAAGT AGTACTGTT
469 59
470

Name

471 (2) INFORMATION FOR SEQ ID NO: 8:

472
473 (i) SEQUENCE CHARACTERISTICS:
--> 474 (A) LENGTH: 60 base pairs
475 (B) TYPE: nucleic acid
476 (C) STRANDEDNESS: double
477 (D) TOPOLOGY: linear
478

479 (ii) MOLECULE TYPE: DNA (genomic)

480
481 (iii) HYPOTHETICAL: YES
482
483 (iv) ANTI-SENSE: NO
484

485 (vi) ORIGINAL SOURCE:
486 (A) ORGANISM: Lactococcus lactis
487

488 (ix) FEATURE:
489 (A) NAME/KEY: promoter
490 (B) LOCATION: 4..60
491 (D) OTHER INFORMATION:/standard_name= "Constitutional
492 promoter"
493 /label= Cp12
494
495

496 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

497
498 CATATACAAG TTTATTCTTG ACACTAGTCG GCCAAATGA TATAATACCT GAGTACTGTT
499 60
500

Name

502 (2) INFORMATION FOR SEQ ID NO: 9:

503
504 (i) SEQUENCE CHARACTERISTICS:
--> 505 (A) LENGTH: 60 base pairs
506 (B) TYPE: nucleic acid
507 (C) STRANDEDNESS: double
508 (D) TOPOLOGY: linear

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509 (ii) MOLECULE TYPE: DNA (genomic)
510
511 (iii) HYPOTHETICAL: YES
512
513 (iv) ANTI-SENSE: NO
514
515 (vi) ORIGINAL SOURCE:
516 (A) ORGANISM: Lactococcus lactis
517
518 (ix) FEATURE:
519 (A) NAME/KEY: promoter
520 (B) LOCATION: 4..60
521 (D) OTHER INFORMATION:/standard_name= "Constitutional
522 promoter"
523 /label= Cp13
524
525
526
527 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
528
529 CATGCTTTAC TTTATTCTTG ACAAAACCAC CAGCTTTGG TATAATACGT GAGAACTGTT
530 60
531
532

Name

533 (2) INFORMATION FOR SEQ ID NO: 10:
534
535 (i) SEQUENCE CHARACTERISTICS:
--> 536 (A) LENGTH: 60 base pairs
537 (B) TYPE: nucleic acid
538 (C) STRANDEDNESS: double
539 (D) TOPOLOGY: linear
540
541 (ii) MOLECULE TYPE: DNA (genomic)
542
543 (iii) HYPOTHETICAL: YES
544
545 (iv) ANTI-SENSE: NO
546
547 (vi) ORIGINAL SOURCE:
548 (A) ORGANISM: Lactococcus lactis
549
550 (ix) FEATURE:
551 (A) NAME/KEY: promoter
552 (B) LOCATION: 4..60
553 (D) OTHER INFORMATION:/standard_name= "Constitutional
554 promoter"
555 /label= Cp14
556
557
558 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
559
560 CATGACGGAG TTTATTCTTG ACACAGGTAT GGACTTATGA TATAATAAAA CAGTACTGTT

Name

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561 60
562
563

564 (2) INFORMATION FOR SEQ ID NO: 11:
565
566 (i) SEQUENCE CHARACTERISTICS:
--> 567 (A) LENGTH: 60 base pairs
568 (B) TYPE: nucleic acid
569 (C) STRANDEDNESS: double
570 (D) TOPOLOGY: linear
571
572 (ii) MOLECULE TYPE: DNA (genomic)
573
574 (iii) HYPOTHETICAL: YES
575
576 (iv) ANTI-SENSE: NO
577
578 (vi) ORIGINAL SOURCE:
579 (A) ORGANISM: Lactococcus lactis
580
581 (ix) FEATURE:
582 (A) NAME/KEY: promoter
583 (B) LOCATION: 4..60
584 (D) OTHER INFORMATION:/standard_name= "Constitutional
585 promoter"
586 /label= Cp15
587
588
589 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
590
591 CATTACNTAG TTNATTCTTG ACAGAATTAC GATTCGCTGG TATAATATAT CAGTACTGTT
592 60
593
594

name

595 (2) INFORMATION FOR SEQ ID NO: 12:
596
597 (i) SEQUENCE CHARACTERISTICS:
--> 598 (A) LENGTH: 58 base pairs
599 (B) TYPE: nucleic acid
600 (C) STRANDEDNESS: double
601 (D) TOPOLOGY: linear
602
603 (ii) MOLECULE TYPE: DNA (genomic)
604
605 (iii) HYPOTHETICAL: YES
606
607 (iv) ANTI-SENSE: NO
608
609 (vi) ORIGINAL SOURCE:
610 (A) ORGANISM: Lactococcus lactis
611

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612 (ix) FEATURE:
613 (A) NAME/KEY: promoter
614 (B) LOCATION: 4..58
615 (D) OTHER INFORMATION:/standard_name= "Constitutional
616 promoter"
617 /label= Cp16

618

619

620 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:

621

622 CATTGTGTAG TTTATTCTTG ACAGCTATGA GTCAATTGG TATAATAACA GTACTCAG
623 58

624

Same

625 (2) INFORMATION FOR SEQ ID NO: 13:

626

627 (i) SEQUENCE CHARACTERISTICS:
628 (A) LENGTH: 59 base pairs
629 (B) TYPE: nucleic acid
630 (C) STRANDEDNESS: double
631 (D) TOPOLOGY: linear

632

633 (iii) MOLECULE TYPE: DNA (genomic)

634

635 (iii) HYPOTHETICAL: YES

636

637 (iv) ANTI-SENSE: NO

638

639 (vi) ORIGINAL SOURCE:
640 (A) ORGANISM: Lactococcus lactis

641

642 (ix) FEATURE:
643 (A) NAME/KEY: promoter
644 (B) LOCATION: 4..59
645 (D) OTHER INFORMATION:/standard_name= "Constitutional
646 promoter"
647 /label= Cp17

648

649

650 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:

651

652 CATTCTGGAG TTTATTCTTG ACCGCTCAGT ATGCAGTGGT ATAATAGTAC AGTACTGTT
653 59

654

Same

655 (2) INFORMATION FOR SEQ ID NO: 14:

656

657 (i) SEQUENCE CHARACTERISTICS:
658 (A) LENGTH: 58 base pairs
659 (B) TYPE: nucleic acid
660 (C) STRANDEDNESS: double
661 (D) TOPOLOGY: linear

662

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663 (ii) MOLECULE TYPE: DNA (genomic)
664
665 (iii) HYPOTHETICAL: YES
666
667 (iv) ANTI-SENSE: NO
668
669 (vi) ORIGINAL SOURCE:
670 (A) ORGANISM: Lactococcus lactis
671
672 (ix) FEATURE:
673 (A) NAME/KEY: promoter
674 (B) LOCATION: 4..58
675 (D) OTHER INFORMATION:/standard_name= "Constitutional
676 promoter"
677 /label= Cp18
678
679
680 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:
681
682 CATTTCAG TTTATTCTTG ACATTGTGTG CTTGGGTGT ATAATACTAA GTACTGTT
683 58
684

Name

685 (2) INFORMATION FOR SEQ ID NO: 15:
686
687 (i) SEQUENCE CHARACTERISTICS:
--> 688 (A) LENGTH: 58 base pairs
689 (B) TYPE: nucleic acid
690 (C) STRANDEDNESS: double
691 (D) TOPOLOGY: linear
692
693 (ii) MOLECULE TYPE: DNA (genomic)
694
695 (iii) HYPOTHETICAL: YES
696
697 (iv) ANTI-SENSE: NO
698
699 (vi) ORIGINAL SOURCE:
700 (A) ORGANISM: Lactococcus lactis
701
702 (ix) FEATURE:
703 (A) NAME/KEY: promoter
704 (B) LOCATION: 4..58
705 (D) OTHER INFORMATION:/standard_name= "Constitutional
706 promoter"
707 /label= Cp19
708
709
710 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:
711
712 CATCGCTTAG TTTTCTTGA CAGGAGGGAT CCGGGTTGAT ATAATAGTTA GTACTGTT
713 58
714

Name

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657**DATE: 02/09/2000
TIME: 09:53:50**INPUT SET: S34681.raw**

715 (2) INFORMATION FOR SEQ ID NO: 16:
716
717 (i) SEQUENCE CHARACTERISTICS:
--> 718 (A) LENGTH: 60 base pairs
719 (B) TYPE: nucleic acid
720 (C) STRANDEDNESS: double
721 (D) TOPOLOGY: linear
722
723 (ii) MOLECULE TYPE: DNA (genomic)
724
725 (iii) HYPOTHETICAL: YES
726
727 (iv) ANTI-SENSE: NO
728
729 (vi) ORIGINAL SOURCE:
730 (A) ORGANISM: Lactococcus lactis
731
732 (ix) FEATURE:
733 (A) NAME/KEY: promoter
734 (B) LOCATION:4..60
735 (D) OTHER INFORMATION:/standard_name= "Constitutional
736 promoter"
737 /label= Cp2
738
739
740 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:
741
742 CATTGGCTAG TTTATTCTTG ACATGAAGCG TGCCTAATGG TATATTACTT GAGTACTGTT
743 60
744
745

Name

746 (2) INFORMATION FOR SEQ ID NO: 17:
747
748 (i) SEQUENCE CHARACTERISTICS:
--> 749 (A) LENGTH: 60 base pairs
750 (B) TYPE: nucleic acid
751 (C) STRANDEDNESS: double
752 (D) TOPOLOGY: linear
753
754 (ii) MOLECULE TYPE: DNA (genomic)
755
756 (iii) HYPOTHETICAL: YES
757
758 (iv) ANTI-SENSE: NO
759
760 (vi) ORIGINAL SOURCE:
761 (A) ORGANISM: Lactococcus lactis
762
763 (ix) FEATURE:
764 (A) NAME/KEY: promoter
765 (B) LOCATION:4..60

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657DATE: 02/09/2000
TIME: 09:53:51

INPUT SET: S34681.raw

766 (D) OTHER INFORMATION:/standard_name= "Constitutional
767 promoter"
768 /label= Cp20

769

770

771 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:

772

773 CATGGGTGAG TTTATTCTTG ACAGTGCGGC CNNGGGCTGA TATCATAGCA GAGTACTATT
774 60

775

776

777 (2) INFORMATION FOR SEQ ID NO: 18:

778

779 (i) SEQUENCE CHARACTERISTICS:
--> 780 (A) LENGTH: 59 base pairs
781 (B) TYPE: nucleic acid
782 (C) STRANDEDNESS: double
783 (D) TOPOLOGY: linear

784

785 (ii) MOLECULE TYPE: DNA (genomic)

786

787 (iii) HYPOTHETICAL: YES

788

789 (iv) ANTI-SENSE: NO

790

791 (vi) ORIGINAL SOURCE:

792 (A) ORGANISM: Lactococcus lactis

793

794 (ix) FEATURE:

795 (A) NAME/KEY: promoter
796 (B) LOCATION: 4..59
797 (D) OTHER INFORMATION:/standard_name= "Constitutional
798 promoter"
799 /label= Cp21

800

801

802 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:

803

804 CATTACCGAG TTTATTCTTG ACACCGTTA TCGGGGTTGT ATAATACTAT AGTACTGTT

805 59

806

807 (2) INFORMATION FOR SEQ ID NO: 19:

808

809 (i) SEQUENCE CHARACTERISTICS:
--> 810 (A) LENGTH: 60 base pairs
811 (B) TYPE: nucleic acid
812 (C) STRANDEDNESS: double
813 (D) TOPOLOGY: linear

814

815 (ii) MOLECULE TYPE: DNA (genomic)

816

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RAW SEQUENCE LISTING
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TIME: 09:53:51

INPUT SET: S34681.raw

817 (iii) HYPOTHETICAL: YES
818
819 (iv) ANTI-SENSE: NO
820
821 (vi) ORIGINAL SOURCE:
822 (A) ORGANISM: Lactococcus lactis
823
824 (ix) FEATURE:
825 (A) NAME/KEY: promoter
826 (B) LOCATION: 4..60
827 (D) OTHER INFORMATION: /standard_name= "Constitutional
828 promoter"
829 /label= Cp23
830
831
832 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 19:
833
834 CATGTAGGAG TTTATTCTTG ACAGATTAGT TAGGGGGTGG TATAATATCT CAGTACTGTT
835 60
836
837

Name

838 (2) INFORMATION FOR SEQ ID NO: 20:
839
840 (i) SEQUENCE CHARACTERISTICS:
841 (A) LENGTH: 60 base pairs
842 (B) TYPE: nucleic acid
843 (C) STRANDEDNESS: double
844 (D) TOPOLOGY: linear
845
846 (ii) MOLECULE TYPE: DNA (genomic)
847
848 (iii) HYPOTHETICAL: YES
849
850 (iv) ANTI-SENSE: NO
851
852 (vi) ORIGINAL SOURCE:
853 (A) ORGANISM: Lactococcus lactis
854
855 (ix) FEATURE:
856 (A) NAME/KEY: promoter
857 (B) LOCATION: 4..60
858 (D) OTHER INFORMATION: /standard_name= "Constitutional
859 promoter"
860 /label= Cp24
861
862
863 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 20:
864
865 CATGGGTAAG TTTATTCTTC ACACTATCTG GGCCCGATGG TATAATAAGT GACTACTGTT
866 60
867
868

Name

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657**DATE: 02/09/2000
TIME: 09:53:51**INPUT SET: S34681.raw**

869 (2) INFORMATION FOR SEQ ID NO: 21:
870
871 (i) SEQUENCE CHARACTERISTICS:
--> 872 (A) LENGTH: 59 base pairs
873 (B) TYPE: nucleic acid
874 (C) STRANDEDNESS: double
875 (D) TOPOLOGY: linear
876
877 (ii) MOLECULE TYPE: DNA (genomic)
878
879 (iii) HYPOTHETICAL: YES
880
881 (iv) ANTI-SENSE: NO
882
883 (vi) ORIGINAL SOURCE:
884 (A) ORGANISM: Lactococcus lactis
885
886 (ix) FEATURE:
887 (A) NAME/KEY: promoter
888 (B) LOCATION:3..59
889 (D) OTHER INFORMATION:/standard_name= "Constitutional
890 promoter"
891 /label= Cp25
892
893
894 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 21:
895
896 CTTTGGCAGT TTATTCTTGA CATGTAGTGA GGGGGCTGGT ATAATCACAT AGTACTGTT
897 59
898

Marie

899 (2) INFORMATION FOR SEQ ID NO: 22:
900
901 (i) SEQUENCE CHARACTERISTICS:
--> 902 (A) LENGTH: 60 base pairs
903 (B) TYPE: nucleic acid
904 (C) STRANDEDNESS: double
905 (D) TOPOLOGY: linear
906
907 (ii) MOLECULE TYPE: DNA (genomic)
908
909 (iii) HYPOTHETICAL: YES
910
911 (iv) ANTI-SENSE: NO
912
913 (vi) ORIGINAL SOURCE:
914 (A) ORGANISM: Lactococcus lactis
915
916 (ix) FEATURE:
917 (A) NAME/KEY: promoter
918 (B) LOCATION:4..60
919 (D) OTHER INFORMATION:/standard_name= "Constitutional

**RAW SEQUENCE LISTING
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920 **promoter"**
921 /**label= Cp26**
922
923
924 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:
925
926 CATTCTACAG TTTATTCTTG ACATTGCACT GTCCCCCTGG TATAATAACT ATACATGCAT
927 60
928
929

Name

930 (2) INFORMATION FOR SEQ ID NO: 23:
931
932 (i) SEQUENCE CHARACTERISTICS:
--> 933 (A) LENGTH: 60 base pairs
934 (B) TYPE: nucleic acid
935 (C) STRANDEDNESS: double
936 (D) TOPOLOGY: linear
937
938 (ii) MOLECULE TYPE: DNA (genomic)
939
940 (iii) HYPOTHETICAL: YES
941
942 (iv) ANTI-SENSE: NO
943
944 (vi) ORIGINAL SOURCE:
945 (A) ORGANISM: Lactococcus lactis
946
947 (ix) FEATURE:
948 (A) NAME/KEY: promoter
949 (B) LOCATION: 4..60
950 (D) OTHER INFORMATION: /standard_name= "Constitutional
951 **promoter"**
952 /**label= Cp28**
953
954
955 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 23:
956
957 CATGGGGCCG TTTATTCTTG ACAACGGCGA GCAGACCTGG TATAATAATA TAGTACTGTT
958 60
959
960

Name

961 (2) INFORMATION FOR SEQ ID NO: 24:
962
963 (i) SEQUENCE CHARACTERISTICS:
--> 964 (A) LENGTH: 59 base pairs
965 (B) TYPE: nucleic acid
966 (C) STRANDEDNESS: double
967 (D) TOPOLOGY: linear
968
969 (ii) MOLECULE TYPE: DNA (genomic)
970

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657DATE: 02/09/2000
TIME: 09:53:52

INPUT SET: S34681.raw

971 (iii) HYPOTHETICAL: YES
972
973 (iv) ANTI-SENSE: NO
974
975 (vi) ORIGINAL SOURCE:
976 (A) ORGANISM: Lactococcus lactis
977
978 (ix) FEATURE:
979 (A) NAME/KEY: promoter
980 (B) LOCATION:4..59
981 (D) OTHER INFORMATION:/standard_name= "Constitutional
982 promoter"
983 /label= Cp29
984
985
986 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 24:
987
988 CATCGGTAAG TTATTCTTGA CATCTCAGGG GGGACGTGGT ATAATAACTG AGTACTGTT
989 59
990

Dane

991 (2) INFORMATION FOR SEQ ID NO: 25:
992
993 (i) SEQUENCE CHARACTERISTICS:
--> 994 (A) LENGTH: 60 base pairs
995 (B) TYPE: nucleic acid
996 (C) STRANDEDNESS: double
997 (D) TOPOLOGY: linear
998
999 (ii) MOLECULE TYPE: DNA (genomic)
1000
1001 (iii) HYPOTHETICAL: YES
1002
1003 (iv) ANTI-SENSE: NO
1004
1005 (vi) ORIGINAL SOURCE:
1006 (A) ORGANISM: Lactococcus lactis
1007
1008 (ix) FEATURE:
1009 (A) NAME/KEY: promoter
1010 (B) LOCATION:4..60
1011 (D) OTHER INFORMATION:/standard_name= "Constitutional
1012 promoter"
1013 /label= Cp3
1014
1015
1016 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 25:
1017
1018 CATCCTGTAG TTTATTCTTG ACACACGTNN TTAGCTGTGG TATAATAGGA GAGTACTGTT
1019 60
1020
1021

1022 (2) INFORMATION FOR SEQ ID NO: 26:

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**RAW SEQUENCE LISTING
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TIME: 09:53:52

INPUT SET: S34681.raw

Name

1053 (2) INFORMATION FOR SEQ ID NO: 27:
1054
1055 (i) SEQUENCE CHARACTERISTICS:
--> 1056 (A) LENGTH: 60 base pairs
1057 (B) TYPE: nucleic acid
1058 (C) STRANDEDNESS: double
1059 (D) TOPOLOGY: linear
1060
1061 (ii) MOLECULE TYPE: DNA (genomic)
1062
1063 (iii) HYPOTHETICAL: YES
1064
1065 (iv) ANTI-SENSE: NO
1066
1067 (vi) ORIGINAL SOURCE:
1068 (A) ORGANISM: Lactococcus lactis
1069
1070 (ix) FEATURE:
1071 (A) NAME/KEY: promoter
1072 (B) LOCATION: 4..60
1073 (D) OTHER INFORMATION:/standard_name= "Constitutional
1074 promoter"

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657DATE: 02/09/2000
TIME: 09:53:53

INPUT SET: S34681.raw

1126
1127 (iv) ANTI-SENSE: NO
1128
1129 (vi) ORIGINAL SOURCE:
1130 (A) ORGANISM: Lactococcus lactis
1131
1132 (ix) FEATURE:
1133 (A) NAME/KEY: promoter
1134 (B) LOCATION:4..60
1135 (D) OTHER INFORMATION:/standard_name= "Constitutional
1136 promoter"
1137 /label= Cp34
1138
1139
1140 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 29:
1141
1142 CATCGCGAAG TTTATTCTTC ACACACCGCA GAACTTGTGG TATAATACAA CAGTACTGTT
1143 60
1144
1145

Dane

1146 (2) INFORMATION FOR SEQ ID NO: 30:
1147
1148 (i) SEQUENCE CHARACTERISTICS:
--> 1149 (A) LENGTH: 59 base pairs
1150 (B) TYPE: nucleic acid
1151 (C) STRANDEDNESS: double
1152 (D) TOPOLOGY: linear
1153
1154 (ii) MOLECULE TYPE: DNA (genomic)
1155
1156 (iii) HYPOTHETICAL: YES
1157
1158 (iv) ANTI-SENSE: NO
1159
1160 (vi) ORIGINAL SOURCE:
1161 (A) ORGANISM: Lactococcus lactis
1162
1163 (ix) FEATURE:
1164 (A) NAME/KEY: promoter
1165 (B) LOCATION:4..59
1166 (D) OTHER INFORMATION:/standard_name= "Constitutional
1167 promoter"
1168 /label= Cp37
1169
1170
1171 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 30:
1172
1173 CATCATTAAG TTTATTCTTC ACATTGGCCG GAATTGTTGT ATAATACCTT AGTACTGTT
1174 59
1175

Dane

1176 (2) INFORMATION FOR SEQ ID NO: 31:

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PATENT APPLICATION US/09/242,657DATE: 02/09/2000
TIME: 09:53:53

INPUT SET: S34681.raw

1177
1178 (i) SEQUENCE CHARACTERISTICS:
--> 1179 (A) LENGTH: 60 base pairs
1180 (B) TYPE: nucleic acid
1181 (C) STRANDEDNESS: double
1182 (D) TOPOLOGY: linear
1183
1184 (ii) MOLECULE TYPE: DNA (genomic)
1185
1186 (iii) HYPOTHETICAL: YES
1187
1188 (iv) ANTI-SENSE: NO
1189
1190 (vi) ORIGINAL SOURCE:
1191 (A) ORGANISM: Lactococcus lactis
1192
1193 (ix) FEATURE:
1194 (A) NAME/KEY: promoter
1195 (B) LOCATION: 4..60
1196 (D) OTHER INFORMATION:/standard_name= "Constitutional
1197 promoter"
1198 /label= Cp38
1199
1200
1201 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 31:
1202
1203 CATAGAGAAG TTTATTCTTG ACAGCTAACT TGGCCTTG AATAATACAT GAGTACTGTT
1204 60
1205
1206

Dane

1207 (2) INFORMATION FOR SEQ ID NO: 32:
1208
1209 (i) SEQUENCE CHARACTERISTICS:
--> 1210 (A) LENGTH: 60 base pairs
1211 (B) TYPE: nucleic acid
1212 (C) STRANDEDNESS: double
1213 (D) TOPOLOGY: linear
1214
1215 (ii) MOLECULE TYPE: DNA (genomic)
1216
1217 (iii) HYPOTHETICAL: YES
1218
1219 (iv) ANTI-SENSE: NO
1220
1221 (vi) ORIGINAL SOURCE:
1222 (A) ORGANISM: Lactococcus lactis
1223
1224 (ix) FEATURE:
1225 (A) NAME/KEY: promoter
1226 (B) LOCATION: 4..60
1227 (D) OTHER INFORMATION:/standard_name= "Constitutional
1228 promoter"

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657**DATE: 02/09/2000
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1229 /label= Cp39
1230
1231
1232 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 32:
1233
1234 CATTGCGAAG TTTATTCTTG ACAGTACGTT TTTACCATGA TATAATAGTA TAGTACTGTT
1235 60
1236
1237

Dame

1238 (2) INFORMATION FOR SEQ ID NO: 33:
1239
1240 (i) SEQUENCE CHARACTERISTICS:
--> 1241 (A) LENGTH: 60 base pairs
1242 (B) TYPE: nucleic acid
1243 (C) STRANDEDNESS: double
1244 (D) TOPOLOGY: linear
1245
1246 (ii) MOLECULE TYPE: DNA (genomic)
1247
1248 (iii) HYPOTHETICAL: YES
1249
1250 (iv) ANTI-SENSE: NO
1251
1252 (vi) ORIGINAL SOURCE:
1253 (A) ORGANISM: Lactococcus lactis
1254
1255 (ix) FEATURE:
1256 (A) NAME/KEY: promoter
1257 (B) LOCATION: 4..60
1258 (D) OTHER INFORMATION:/standard_name= "Constitutional
1259 promoter"
1260 /label= Cp4
1261
1262
1263 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 33:
1264
1265 GATGTTTAG TTTATTCTTG ACACCGTATC GTGCGCGTGA TATAATCGGG ATCCTTAAGA
1266 60
1267
1268

Dame

1269 (2) INFORMATION FOR SEQ ID NO: 34:
1270
1271 (i) SEQUENCE CHARACTERISTICS:
--> 1272 (A) LENGTH: 59 base pairs
1273 (B) TYPE: nucleic acid
1274 (C) STRANDEDNESS: double
1275 (D) TOPOLOGY: linear
1276
1277 (ii) MOLECULE TYPE: DNA (genomic)
1278
1279 (iii) HYPOTHETICAL: YES

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INPUT SET: S34681.raw

1280
1281 (iv) ANTI-SENSE: NO
1282
1283 (vi) ORIGINAL SOURCE:
1284 (A) ORGANISM: Lactococcus lactis
1285
1286 (ix) FEATURE:
1287 (A) NAME/KEY: promoter
1288 (B) LOCATION: 4
1289 (D) OTHER INFORMATION:/standard_name= "Constitutional
1290 promoter"
1291 /label= Cp40
1292
1293
1294 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 34:
1295
1296 CATAGAACAG TTTATTCTTG ACATTGAATA AGAAGGCTGA TATAATAGCC AGTACTGTT
1297 59
1298

Name

1299 (2) INFORMATION FOR SEQ ID NO: 35:
1300
1301 (i) SEQUENCE CHARACTERISTICS:
--> 1302 (A) LENGTH: 60 base pairs
1303 (B) TYPE: nucleic acid
1304 (C) STRANDEDNESS: double
1305 (D) TOPOLOGY: linear
1306
1307 (ii) MOLECULE TYPE: DNA (genomic)
1308
1309 (iii) HYPOTHETICAL: YES
1310
1311 (iv) ANTI-SENSE: NO
1312
1313 (vi) ORIGINAL SOURCE:
1314 (A) ORGANISM: Lactococcus lactis
1315
1316 (ix) FEATURE:
1317 (A) NAME/KEY: promoter
1318 (B) LOCATION: 4..60
1319 (D) OTHER INFORMATION:/standard_name= "Constitutional
1320 promoter"
1321 /label= Cp41
1322
1323
1324 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 35:
1325
1326 CATCCGCAAG TTTATTCTTG ACAGCTGAAT GTAGACGTGG TATAATAGTT AAGTACTGTT
1327 60
1328
1329

Name

1330 (2) INFORMATION FOR SEQ ID NO: 36:

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657**DATE: 02/09/2000
TIME: 09:53:54**INPUT SET: S34681.raw**

1331
1332 (i) SEQUENCE CHARACTERISTICS:
--> 1333 (A) LENGTH: 60 base pairs
1334 (B) TYPE: nucleic acid
1335 (C) STRANDEDNESS: double
1336 (D) TOPOLOGY: linear
1337
1338 (ii) MOLECULE TYPE: DNA (genomic)
1339
1340 (iii) HYPOTHETICAL: YES
1341
1342 (iv) ANTI-SENSE: NO
1343
1344 (vi) ORIGINAL SOURCE:
1345 (A) ORGANISM: Lactococcus lactis
1346
1347 (ix) FEATURE:
1348 (A) NAME/KEY: promoter
1349 (B) LOCATION:4..60
1350 (D) OTHER INFORMATION:/standard_name= "Constitutional
1351 promoter"
1352 /label= Cp42
1353
1354
1355 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 36:
1356
1357 CATTCGTAAG TTTATTCTTG ACACCTGAGA TGAGGCGTGA TATAATAAAAT AAGTACTGTT
1358 60
1359
1360

Raven

1361 (2) INFORMATION FOR SEQ ID NO: 37:
1362
1363 (i) SEQUENCE CHARACTERISTICS:
--> 1364 (A) LENGTH: 59 base pairs
1365 (B) TYPE: nucleic acid
1366 (C) STRANDEDNESS: double
1367 (D) TOPOLOGY: linear
1368
1369 (ii) MOLECULE TYPE: DNA (genomic)
1370
1371 (iii) HYPOTHETICAL: YES
1372
1373 (iv) ANTI-SENSE: NO
1374
1375 (vi) ORIGINAL SOURCE:
1376 (A) ORGANISM: Lactococcus lactis
1377
1378 (ix) FEATURE:
1379 (A) NAME/KEY: promoter
1380 (B) LOCATION:4..59
1381 (D) OTHER INFORMATION:/standard_name= "Constitutional
1382 promoter"

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657**DATE: 02/09/2000
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1383 /label= Cp44
1384
1385
1386 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 37:
1387
1388 CATCGGGTAG TTTATTCTTG ACAATTAAGT AGAGCCTGAT ATAATAGTTC AGTACTGTT
1389 59
1390

Name

1391 (2) INFORMATION FOR SEQ ID NO: 38:
1392
1393 (i) SEQUENCE CHARACTERISTICS:
--> 1394 (A) LENGTH: 59 base pairs
1395 (B) TYPE: nucleic acid
1396 (C) STRANDEDNESS: double
1397 (D) TOPOLOGY: linear
1398
1399 (ii) MOLECULE TYPE: DNA (genomic)
1400
1401 (iii) HYPOTHETICAL: YES
1402
1403 (iv) ANTI-SENSE: NO
1404
1405 (vi) ORIGINAL SOURCE:
1406 (A) ORGANISM: Lactococcus lactis
1407
1408 (ix) FEATURE:
1409 (A) NAME/KEY: promoter
1410 (B) LOCATION: 4..59
1411 (C) IDENTIFICATION METHOD: experimental
1412 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
1413 /standard_name= "Constitutional promoter"
1414 /label= Cp5
1415
1416
1417 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 38:
1418
1419 CATGGGGAG TTTATTCTTG ACATCATCTT CGTAGCCTGG TATACTACAT GAGTATGTT
1420 59
1421

Name

1422 (2) INFORMATION FOR SEQ ID NO: 39:
1423
1424 (i) SEQUENCE CHARACTERISTICS:
--> 1425 (A) LENGTH: 60 base pairs
1426 (B) TYPE: nucleic acid
1427 (C) STRANDEDNESS: double
1428 (D) TOPOLOGY: linear
1429
1430 (ii) MOLECULE TYPE: DNA (genomic)
1431
1432 (iii) HYPOTHETICAL: YES
1433

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INPUT SET: S34681.raw

1434 (iv) ANTI-SENSE: NO
1435
1436 (vi) ORIGINAL SOURCE:
1437 (A) ORGANISM: Lactococcus lactis
1438
1439 (ix) FEATURE:
1440 (A) NAME/KEY: promoter
1441 (B) LOCATION: 4..60
1442 (D) OTHER INFORMATION:/standard_name= "Constitutional
1443 promoter"
1444 /label= Cp6
1445
1446
1447 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 39:
1448
1449 CATGTGGGAG TTTATTCTTG ACACAGATAT TTCCGGATGA TATAATAACT GAGTACTGTT
1450 60
1451
1452

Name

1453 (2) INFORMATION FOR SEQ ID NO: 40:
1454
1455 (i) SEQUENCE CHARACTERISTICS:
--> 1456 (A) LENGTH: 60 base pairs
1457 (B) TYPE: nucleic acid
1458 (C) STRANDEDNESS: double
1459 (D) TOPOLOGY: linear
1460
1461 (ii) MOLECULE TYPE: DNA (genomic)
1462
1463 (iii) HYPOTHETICAL: YES
1464
1465 (iv) ANTI-SENSE: NO
1466 (vi) ORIGINAL SOURCE:
1467 (A) ORGANISM: Lactococcus lactis
1468
1469 (ix) FEATURE:
1470 (A) NAME/KEY: promoter
1471 (B) LOCATION: 4..60
1472 (D) OTHER INFORMATION:/standard_name= "Constitutional
1473 promoter"
1474 /label= Cp7
1475
1476
1477 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 40:
1478
1479 TATGCCGTAG TTTATTCTTG ACATGACGAG ACAGGTGTGG TATAATGGGT CTAGATTAGG
1480 60
1481
1482

Name

1483 (2) INFORMATION FOR SEQ ID NO: 41:
1484

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/242,657**

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INPUT SET: S34681.raw

--> 1514 (2) INFORMATION FOR SEQ ID NO: 42:
1515
1516 (i) SEQUENCE CHARACTERISTICS:
1517 (A) LENGTH: 60 base pairs
1518 (B) TYPE: nucleic acid
1519 (C) STRANDEDNESS: double
1520 (D) TOPOLOGY: linear
1521
1522 (ii) MOLECULE TYPE: DNA (genomic)
1523
1524 (iii) HYPOTHETICAL: YES
1525
1526 (iv) ANTI-SENSE: NO
1527
1528 (vi) ORIGINAL SOURCE:
1529 (A) ORGANISM: Lactococcus lactis
1530
1531 (ix) FEATURE:
1532 (A) NAME/KEY: promoter
1533 (B) LOCATION: 4..60
1534 (D) OTHER INFORMATION:/standard_name= "Constitutional
1535 promoter"
1536 /label= Cp9

**RAW SEQUENCE LISTING
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1537
1538
1539 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 42:
1540
1541 CATACTCTAG TTTATTCTTG ACACCGGGTC CATTGGCTGG TATAATAATT TAGTACTGTT
1542 60
1543
1544

1545 (2) INFORMATION FOR SEQ ID NO: 43:

1546
1547 (i) SEQUENCE CHARACTERISTICS:
--> 1548 (A) LENGTH: 177 base pairs
1549 (B) TYPE: nucleic acid
1550 (C) STRANDEDNESS: double
1551 (D) TOPOLOGY: linear
1552
1553 (ii) MOLECULE TYPE: DNA (genomic)
1554
1555 (iii) HYPOTHETICAL: YES
1556
1557 (iv) ANTI-SENSE: NO
1558
1559 (vi) ORIGINAL SOURCE:
1560 (A) ORGANISM: *Saccharomyces cerevisiae*
1561
1562 (ix) FEATURE:
1563 (A) NAME/KEY: promoter
1564 (B) LOCATION: 8..177
1565 (C) IDENTIFICATION METHOD: experimental
1566 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
1567 /standard_name= "Yeast promoter"
1568 /label= Yp102
1569
1570
1571 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 43:
1572

1573 GAATTCGTGA CTCAAACGGG TGGTCGACGG GTGGTTCCAA TTAATTGGCG TCCCTCTTAT
1574 60

1575
1576 AAAGGCGAGG GTACGTGCGA CAATTGGTAG AGCGAGCGGG GCTCTTAAGT GCAAGTGACT
1577 120

1578
1579 GCGAACATTT TTTTCGTTTG TTAGAATAAT TCAAGAATCG CTACCAATCA TGGATCC
1580 177

Same

1582 (2) INFORMATION FOR SEQ ID NO: 44:

1583
1584 (i) SEQUENCE CHARACTERISTICS:
--> 1585 (A) LENGTH: 182 base pairs
1586 (B) TYPE: nucleic acid
1587 (C) STRANDEDNESS: double

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1588 (D) TOPOLOGY: linear
1589
1590 (ii) MOLECULE TYPE: DNA (genomic)
1591
1592 (iii) HYPOTHETICAL: YES
1593
1594 (iv) ANTI-SENSE: NO
1595
1596 (vi) ORIGINAL SOURCE:
1597 (A) ORGANISM: *Saccharomyces cerevisiae*
1598
1599 (ix) FEATURE:
1600 (A) NAME/KEY: promoter
1601 (B) LOCATION: 8..181
1602 (C) IDENTIFICATION METHOD: experimental
1603 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL
1604 /standard_name= "Yeast promoter"
1605 /label= Yp112
1606
1607
1608 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 44:
1609
1610 GAATTCTGTA CTCACGGCAT CTGATGGTTG ACCATAGTCA GGAACATTGT GCTGGAGTTC
1611 60
1612
1613 CTTGAGGAAT GAGTTATAAA ATGGGAGGTT GCGGCTAATG CCAGGCAGGA GAGGAACCCT
1614 120
1615
1616 CTTAAGTGCA AGTGACTGCA AACATTTTT TCGTTTGTG AATCGCTACC AATCATGGAT
1617 180
1618
1619 CC
1620 182
1621

1622 (2) INFORMATION FOR SEQ ID NO: 45:
1623
1624 (i) SEQUENCE CHARACTERISTICS:
--> 1625 (A) LENGTH: 191 base pairs
1626 (B) TYPE: nucleic acid
1627 (C) STRANDEDNESS: double
1628 (D) TOPOLOGY: linear
1629
1630 (ii) MOLECULE TYPE: DNA (genomic)
1631
1632 (iii) HYPOTHETICAL: YES
1633
1634 (iv) ANTI-SENSE: NO
1635
1636 (vi) ORIGINAL SOURCE:
1637 (A) ORGANISM: *Saccharomyces cerevisiae*
1638
1639 (ix) FEATURE:

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1640 (A) NAME/KEY: promoter
1641 (B) LOCATION: 8..181
1642 (C) IDENTIFICATION METHOD: experimental
1643 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
1644 /standard_name= "Yeast promoter"
1645 /label= Yp13

1646

1647

1648 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 45:

1649

1650 GAATTCGTGA CTCACTAGGC AGGTCACGTT GGCTCTTCGC GGCGCAGGTT CGTATGCCGC

1651 60

1652

1653 GCCGCCAGGG GCTTTATAAA GGTGTCCTG GGTACAGTTG GGATGGCTCC ACGTTTCGGC
1654 120

1655

1656 TCTTAAGTGC AAGTGACTGC GAACATTTCG TTTGTTAGAA TAATTCAAGA ATCGCTACCA
1657 180

1658

1659 ATCATGGATC C

1660 191

1661

Name

1662 (2) INFORMATION FOR SEQ ID NO: 46:

1663

1664 (i) SEQUENCE CHARACTERISTICS:
--> 1665 (A) LENGTH: 167 base pairs
1666 (B) TYPE: nucleic acid
1667 (C) STRANDEDNESS: double
1668 (D) TOPOLOGY: linear

1669

1670 (ii) MOLECULE TYPE: DNA (genomic)

1671

1672 (iii) HYPOTHETICAL: YES

1673

1674 (iv) ANTI-SENSE: NO

1675

1676 (vi) ORIGINAL SOURCE:
1677 (A) ORGANISM: Saccharomyces cerevisiae

1678

1679 (ix) FEATURE:
1680 (A) NAME/KEY: promoter
1681 (B) LOCATION: 8..167
1682 (C) IDENTIFICATION METHOD: experimental
1683 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
1684 /standard_name= "Yeast promoter"
1685 /label= Yp15

1686

1687

1688 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 46:

1689

1690 GAATTCGTGA CTCAGGGCCG TACTAAGTAG CTTCGTATG CTATGCGGGG TTTTATAAAAT

1691 60

Name

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1692 CTTTGGGCCA TGGTCTTGCT GGAAAACACC TCTCTTAAGT GCAAGTGACT GCGAACATTT
1693 120
1694
1695
1696 TTTTCGTTTG TTAGAATAAT TCAAGAATCG CTACCAATCA TGGATCC
1697 167
1698

1699 (2) INFORMATION FOR SEQ ID NO: 47:

1700
1701 (i) SEQUENCE CHARACTERISTICS:
--> 1702 (A) LENGTH: 191 base pairs
1703 (B) TYPE: nucleic acid
1704 (C) STRANDEDNESS: double
1705 (D) TOPOLOGY: linear

1706
1707 (ii) MOLECULE TYPE: DNA (genomic)

1708
1709 (iii) HYPOTHETICAL: YES

1710
1711 (iv) ANTI-SENSE: NO

1712
1713 (vi) ORIGINAL SOURCE:
1714 (A) ORGANISM: Saccharomyces cerevisiae

1715
1716 (ix) FEATURE:
1717 (A) NAME/KEY: promoter
1718 (B) LOCATION: 8..191
1719 (C) IDENTIFICATION METHOD: experimental
1720 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
1721 /standard_name= "Yeast promoter"
1722 /label= Yp154

1723
1724
1725 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 47:

1726
1727 GAATTCTGTGA CTCACCGCTC GGGTGCAGGG CCAAGGCGGC GGAATGTGCG GGGCGTTCTA
1728 60

1729
1730 GCGCAATCGG GGTATAAAATT TATAAGGAGG CTGCGGGTGC TAGTTGTCT AGTTTGACTC
1731 120

1732
1733 TTAAGTGCAA GTGACTGCGA ACATTTTCG TTTGTTAGAA TAATTCAAGA ATCGCTACCA
1734 180

1735
1736 ATCATGGATC C
1737 191

1738

1739 (2) INFORMATION FOR SEQ ID NO: 48:

1740
1741 (i) SEQUENCE CHARACTERISTICS:
--> 1742 (A) LENGTH: 195 base pairs

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1743 (B) TYPE: nucleic acid
1744 (C) STRANDEDNESS: double
1745 (D) TOPOLOGY: linear
1746
1747 (ii) MOLECULE TYPE: DNA (genomic)
1748
1749 (iii) HYPOTHETICAL: YES
1750
1751 (iv) ANTI-SENSE: NO
1752
1753 (vi) ORIGINAL SOURCE:
1754 (A) ORGANISM: *Saccharomyces cerevisiae*
1755
1756 (ix) FEATURE:
1757 (A) NAME/KEY: promoter
1758 (B) LOCATION: 8..190
1759 (C) IDENTIFICATION METHOD: experimental
1760 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL
1761 /standard_name= "Yeast promoter"
1762 /label= Yp18
1763
1764
1765 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 48:
1766
1767 GAATTCGTGA CTCAGGATTA GCTATGCCGG TTGGGATAAG CGAACAACTG GAGGTGAGAA
1768 60
1769
1770 GCTTTTGTC AGAATATAAA CCCGTTAGTC AGGGTTGGT GGGATAGGGG GTACTGTACC
1771 120
1772
1773 TCTTAAGTGC AAGTGACTGC GAACATTTC TTCGTTGTT AGAATAATTC AAGAATCGCT
1774 180
1775
1776 ACCAATCATG GATCC
1777 195
1778

same

1779 (2) INFORMATION FOR SEQ ID NO: 49:
1780
1781 (i) SEQUENCE CHARACTERISTICS:
--> 1782 (A) LENGTH: 179 base pairs
1783 (B) TYPE: nucleic acid
1784 (C) STRANDEDNESS: double
1785 (D) TOPOLOGY: linear
1786
1787 (ii) MOLECULE TYPE: DNA (genomic)
1788
1789 (iii) HYPOTHETICAL: YES
1790
1791 (iv) ANTI-SENSE: NO
1792
1793 (vi) ORIGINAL SOURCE:
1794 (A) ORGANISM: *Saccharomyces cerevisiae*

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1795
1796 (ix) FEATURE:
1797 (A) NAME/KEY: promoter
1798 (B) LOCATION: 8..179
1799 (C) IDENTIFICATION METHOD: experimental
1800 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
1801 /standard_name= "Yeast promoter"
1802 /label= Yp183
1803
1804
1805 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 49:
1806
1807 GAATTCTGTGA CTCACTAAGG GTTCGCCATT AACAGAACATCG CTGGTAGAAC ATCGGTAGTT
1808 60
1809
1810 AGGCACCCGA GTATAAACAG GCGGACCCCT CACGGATATC AGCTGATAGT GCGAGCCTCA
1811 120
1812
1813 ATGCGAACAT TTTTTTCGTT TGTTAGAATA ATTCAAGAAT CGCTACCAAT CATGGATCC
1814 179
1815

name

1816 (2) INFORMATION FOR SEQ ID NO: 50:
1817
1818 (i) SEQUENCE CHARACTERISTICS:
--> 1819 (A) LENGTH: 195 base pairs
1820 (B) TYPE: nucleic acid
1821 (C) STRANDEDNESS: double
1822 (D) TOPOLOGY: linear
1823
1824 (ii) MOLECULE TYPE: DNA (genomic)
1825
1826 (iii) HYPOTHETICAL: YES
1827
1828 (iv) ANTI-SENSE: NO
1829
1830 (vi) ORIGINAL SOURCE:
1831 (A) ORGANISM: Saccharomyces cerevisiae
1832
1833 (ix) FEATURE:
1834 (A) NAME/KEY: promoter
1835 (B) LOCATION: 8..190
1836 (C) IDENTIFICATION METHOD: experimental
1837 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
1838 /standard_name= "Yest promoter"
1839 /label= Yp190
1840
1841
1842 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 50:
1843
1844 GAATTCTGTGA CTCAGTATCC ACGGGTGTTT GAGGGCTGGT CGCAGGTTAG CAGGCGAGGG
1845 60
1846

name

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1847 CGGGTGGTTA CGGCTATAAA TGAGTGTTG CAGCCGGTA CGGGCGTAGC AGTAGTGATC
1848 120
1849
1850 TCTTAAATGC AAGTGACTGC GAACATTTT TTCTGTTGTT AGAATAATTG AAGAATCGCT
1851 180
1852
1853 ACCAACATG GATCC
1854 195
1855

1856 (2) INFORMATION FOR SEQ ID NO: 51:

1857
1858 (i) SEQUENCE CHARACTERISTICS:
--> 1859 (A) LENGTH: 193 base pairs
1860 (B) TYPE: nucleic acid
1861 (C) STRANDEDNESS: double
1862 (D) TOPOLOGY: linear

1863
1864 (ii) MOLECULE TYPE: DNA (genomic)

1865
1866 (iii) HYPOTHETICAL: YES

1867
1868 (iv) ANTI-SENSE: NO

1869
1870 (vi) ORIGINAL SOURCE:
1871 (A) ORGANISM: Saccharomyces cerevisiae

1872
1873 (ix) FEATURE:
1874 (A) NAME/KEY: promoter
1875 (B) LOCATION: 8..189
1876 (C) IDENTIFICATION METHOD: experimental
1877 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL
1878 /standard_name= "Yest promoter"
1879 /label= Yp191

1880
1881 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 51:

1882 GAATTCTGTGA CTCAATGCTG CGGGCGGCAG GAGTCTGGTG TAACTTCCCA TTTTGAGTGA
1883 60

1884 AAGACAGACC ATCTATAAAC ATTTGGTGGG CAAAGTGGCC TGGCGGATTT GTTTGGACTC
1885 120

1886
1887 TTAAGTGAAA GTGACTGCGA ACATTTTTT CGTTTGTAG AATAATTCAA GAATCGCTAC
1888 180

1889
1890 CAATCATGGA TCC
1891 193

1892
1893
1894
1895
1896 (2) INFORMATION FOR SEQ ID NO: 52:
1897

Dane

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--> 1898 (i) SEQUENCE CHARACTERISTICS:
1899 (A) LENGTH: 166 base pairs
1900 (B) TYPE: nucleic acid
1901 (C) STRANDEDNESS: double
1902 (D) TOPOLOGY: linear
1903
1904 (ii) MOLECULE TYPE: DNA (genomic)
1905
1906 (iii) HYPOTHETICAL: YES
1907
1908 (iv) ANTI-SENSE: NO
1909
1910 (vi) ORIGINAL SOURCE:
1911 (A) ORGANISM: *Saccharomyces cerevisiae*
1912
1913 (ix) FEATURE:
1914 (A) NAME/KEY: promoter
1915 (B) LOCATION: 8..166
1916 (C) IDENTIFICATION METHOD: experimental
1917 (D) OTHER INFORMATION: /evidence= EXPERIMENTAL
1918 /standard_name= "Yeast promoter"
1919 /label= Yp192
1920
1921
1922 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 52:
1923
1924 GAATTCTGTA CTCACTTAAG GCTACTGCGG AAGTTTAGAT CTAAGGTCGG AAATAATTAA
1925 60
1926
1927 GAAAATTACG ACATTATAAAA TAGCGGAGAG GCCAGGTGAT GGGCACCATT GTGGGGGGGC
1928 120
1929
1930 TCTTAATTGT TAGAATAATT CAAGAACCGC TACCAATCAT GGATCC
1931 166
1932

1933 (2) INFORMATION FOR SEQ ID NO: 53:
1934
1935 (i) SEQUENCE CHARACTERISTICS:
--> 1936 (A) LENGTH: 195 base pairs
1937 (B) TYPE: nucleic acid
1938 (C) STRANDEDNESS: double
1939 (D) TOPOLOGY: linear
1940
1941 (ii) MOLECULE TYPE: DNA (genomic)
1942
1943 (iii) HYPOTHETICAL: YES
1944
1945 (iv) ANTI-SENSE: NO
1946
1947 (vi) ORIGINAL SOURCE:
1948 (A) ORGANISM: *Saccharomyces cerevisiae*
1949

Daniel

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1950 (ix) FEATURE:
 1951 (A) NAME/KEY: promoter
 1952 (B) LOCATION:8..190
 1953 (C) IDENTIFICATION METHOD: experimental
 1954 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
 /standard_name= "Yeast promoter"
 1955 /label= Yp212
 1956
 1957
 1958
 1959 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 53:
 1960
 1961 GAATTCTGTGA CTCAGTCGCC CGCAAGATGG GATGGTGCAT TTTAACACCC CGAATTATAAC
name
 1962 60
 1963
 1964 TCGTCAACTT ATAGTATAAA CGGAACGCGA CGATACGTT TAGTTTCGG CGAAGTCGAC
 1965 120
 1966
 1967 TCTTAAGTGC AAGTGACTGC GAACATTTTT TTCTGTTGTT AGAATAATTC AAGAATCGCT
 1968 180
 1969
 1970 ACCAATCATG GATCC
 1971 195
 1972

1973 (2) INFORMATION FOR SEQ ID NO: 54:
 1974
 1975 (i) SEQUENCE CHARACTERISTICS:
 --> 1976 (A) LENGTH: 188 base pairs
 1977 (B) TYPE: nucleic acid
 1978 (C) STRANDEDNESS: double
 1979 (D) TOPOLOGY: linear
 1980
 1981 (ii) MOLECULE TYPE: DNA (genomic)
 1982
 1983 (iii) HYPOTHETICAL: YES
 1984
 1985 (iv) ANTI-SENSE: NO
 1986
 1987 (vi) ORIGINAL SOURCE:
 1988 (A) ORGANISM: Saccharomyces cerevisiae
 1989
 1990 (ix) FEATURE:
 1991 (A) NAME/KEY: promoter
 1992 (B) LOCATION:8..183
 1993 (C) IDENTIFICATION METHOD: experimental
 1994 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
 /standard_name= "Yeast promoter"
 1995 /label= Yp24
 1996
 1997
 1998
 1999 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 54:
 2000
 2001 GAATTCTGTAC TCACGACAGC GTTATGACTT CGAGGACCAG CTACTTCCGG TCGCGTACTA
name

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2002 60
2003
2004 GTTTTACCT GTATAAACCT TGCTACCGCT GGGCCTTGGT GGTGCTGTCC CGCTCTTAAG
2005 120
2006
2007 TGCAAGTGAC TGCGAACATT TTTTCGTTT GTTACAATAA TTCAAGAAC GCTACCAATC
2008 180
2009
2010 ATGGATCC
2011 188
2012

2013 (2) INFORMATION FOR SEQ ID NO: 55:

2014
2015 (i) SEQUENCE CHARACTERISTICS:
--> 2016 (A) LENGTH: 195 base pairs
2017 (B) TYPE: nucleic acid
2018 (C) STRANDEDNESS: double
2019 (D) TOPOLOGY: linear
2020
2021 (ii) MOLECULE TYPE: DNA (genomic)
2022
2023 (iii) HYPOTHETICAL: YES
2024
2025 (iv) ANTI-SENSE: NO
2026
2027 (vi) ORIGINAL SOURCE:
2028 (A) ORGANISM: Saccharomyces cerevisiae
2029
2030 (ix) FEATURE:
2031 (A) NAME/KEY: promoter
2032 (B) LOCATION: 8..190
2033 (C) IDENTIFICATION METHOD: experimental
2034 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
2035 /standard_name= "Yeast promoter"
2036 /label= Yp435
2037
2038
2039 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 55:
2040

2041 GAATTCGTGA CAAATGGAT AAGTTATCG CCATCACGGA GTCTTCTCTC ACGTCTGGAG
2042 60
2043
2044 CAGAGGCTAG ACCTTATAAA TTATACATGG TGGGAGAGGC GATAGTCTTT AGAGACGTGC
2045 120
2046
2047 TCTTAAGTGC AAGTGACTGC GAACATTTT TTCGTTGTT AGAATAATTC AAGAATCGCT
2048 180
2049
2050 ACCAATCATG GATCC
2051 195
2052

2053 (2) INFORMATION FOR SEQ ID NO: 56:

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--> 2054
2055 (i) SEQUENCE CHARACTERISTICS:
2056 (A) LENGTH: 189 base pairs
2057 (B) TYPE: nucleic acid
2058 (C) STRANDEDNESS: double
2059 (D) TOPOLOGY: linear
2060
2061 (ii) MOLECULE TYPE: DNA (genomic)
2062
2063 (iii) HYPOTHETICAL: YES
2064
2065 (iv) ANTI-SENSE: NO
2066
2067 (vi) ORIGINAL SOURCE:
2068 (A) ORGANISM: *Saccharomyces cerevisiae*
2069
2070 (ix) FEATURE:
2071 (A) NAME/KEY: promoter
2072 (B) LOCATION: 8..184
2073 (C) IDENTIFICATION METHOD: experimental
2074 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
2075 /standard_name= "Yeast promoter"
2076 /label= Yp68
2077
2078
2079 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 56:
2080
2081 GAATTCTGTA CTCACAAGAA TGTGGCGGG TCGTTAAACT GAGCCTGGAC A
2082 60
2083
2084 CGTCGTTTC GTATAAAGAT CTTAGAGCTG TGGAGTCTGG GTCGAGTGGC C
2085 120
2086
2087 ATGCAAGTGA CTGCGAACAT TTTTTTCGTT TGTTAGAATA ATTCAAGAAT C
2088 180
2089
2090 CATGGATCC
2091 189
2092

Done

--> 2093 (2) INFORMATION FOR SEQ ID NO: 57:
2094
2095 (i) SEQUENCE CHARACTERISTICS:
2096 (A) LENGTH: 195 base pairs
2097 (B) TYPE: nucleic acid
2098 (C) STRANDEDNESS: double
2099 (D) TOPOLOGY: linear
2100
2101 (ii) MOLECULE TYPE: DNA (genomic)
2102
2103 (iii) HYPOTHETICAL: YES
2104
2105 (iv) ANTI-SENSE: NO

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2106
2107 (vi) ORIGINAL SOURCE:
2108 (A) ORGANISM: *Saccharomyces cerevisiae*
2109
2110 (ix) FEATURE:
2111 (A) NAME/KEY: promoter
2112 (B) LOCATION:8..190
2113 (C) IDENTIFICATION METHOD: experimental
2114 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
2115 /standard_name= "Yeast promoter"
2116 /label= Yp89
2117
2118
2119 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 57:
2120
2121 GAATTCTGTGA CTCACTCGGA AGATTGGGTT TACGATTAGG ATGGCGCGGC AGAACCGGGG
2122 60
2123
2124 GGGATTCCCT TCTATATAAA GGGTCCGAT ACTACGTGCT GCGGACGGCC GATCGAGTTA
2125 120
2126
2127 TCTTAAGTGC AAGTGACTGC GAAAATTTT TTCTGTTGTT AGAATAATTC AAGAATCGCT
2128 180
2129
2130 ACCAATCATG GATCC
2131 195
2132

name

2133 (2) INFORMATION FOR SEQ ID NO: 58:
2134
2135 (i) SEQUENCE CHARACTERISTICS:
--> 2136 (A) LENGTH: 176 base pairs
2137 (B) TYPE: nucleic acid
2138 (C) STRANDEDNESS: double
2139 (D) TOPOLOGY: linear
2140
2141 (ii) MOLECULE TYPE: DNA (genomic)
2142
2143 (iii) HYPOTHETICAL: YES
2144
2145 (iv) ANTI-SENSE: NO
2146
2147 (vi) ORIGINAL SOURCE:
2148 (A) ORGANISM: *Saccharomyces cerevisiae*
2149
2150 (ix) FEATURE:
2151 (A) NAME/KEY: promoter
2152 (B) LOCATION:8..171
2153 (C) IDENTIFICATION METHOD: experimental
2154 (D) OTHER INFORMATION:/evidence= EXPERIMENTAL
2155 /standard_name= "Yeast promoter"
2156 /label= Yp96
2157

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2158
2159 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 58:
2160
2161 GAATTCGTGA CTCATCTAGT GAGAGGAGCC GTGGTATCTT GTGTCACCAC CAGGGGAAAA
2162 60
2163
2164 TAATGGCAGG GGTGTATAAA TGGTCGAGTA GTCGCGACCC ACGCTGCAAG GCAAGGAACT
2165 120
2166
2167 CTTAAATTCTT TTTCGTTTGT TAGAATAATT CAAGAATCGC TACCAATCAT GGATCC
2168 176
2169
